

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of January 9, 2007 (Office Action). As this action is timely filed within the three-month shortened statutory period, no fees are believed due. Nonetheless, the Office is expressly authorized to charge any deficiencies or credit any overpayments to Deposit Account 50-0951.

As an initial matter, Applicants wish to thank the Examiner for acknowledging at page 2 of the Office Action that Applicants' previous submission was sufficient to overcome the rejections based upon U.S. Published Patent Application No. 2002/0083090 to Jeffrey, *et al.* In the Office Action, however, each of the claims was rejected based upon new grounds of rejection.

Claims 1-3, 7-9, 11-13 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Patent Application No. 2002/0010000 to Chern, *et al.* (hereinafter Chern), in view of U.S. Patent No. 6,385,602 to Tso, *et al.* (hereinafter Tso), and in further view of U.S. Patent No. 5,220,625 to Hatakeyama, *et al.* (hereinafter Hatakeyama). Claims 4-6, 9-10 and 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chern, in view of Tso, and in further view of Hatakeyama, as applied to claims 1, 7, and 11, and further in view of Pitt, *et al.*, *An Improved Auditory Interface for the Exploration of Lists*, ACM Multimedia 97 (hereinafter Pitt).

Applicants have amended independent Claims 1, 7, 11, and 17 to further emphasize certain aspects of Applicants' invention. Applicants also have amended dependent Claims 1 and 14 to overcome the claim objections stated at page 2 of the Office Action. As discussed in the following section, the amendments are fully supported throughout the Specification. No new matter has been introduced by virtue of the amendments.

Aspects Of Applicants' Invention

Prior to addressing the cited references, it may be useful to reiterate certain aspects of Applicants' invention. One embodiment of the invention, as exemplified by amended Claim 1, is a computer-implemented list presentation method.

The method can include providing an audible prompt through a speech user interface, the audible prompt instructing a user to provide a speech input designating a search topic. The method also can include converting the user-provided speech input into a computer-readable text representation of a topic-indicating phrase corresponding to the search topic.

Additionally, the method can include selecting items from at least one database based on the topic-indicating phrase corresponding to the search topic. Each of the selected items can comprise a corresponding phrase made up of at least one distinct word. The selecting step thus can comprise identifying within the corresponding phrase at least one word that is common to each other phrase corresponding to a selected item, the common word having a predetermined association with the search topic. More particularly, the selecting step can comprise examining a full list of phrases contained in the at least one database and detecting the at least one common word in each phrase corresponding to a selected item. (See, e.g., Specification, p. 8, line 26 – p. 9, line 11; see also p. 9, line 27 – p. 10, line 2, and p. 10, lines 13-20.) Moreover, the selecting step can further comprise detecting and ignoring a grammatical article when a grammatical article appears in one of the phrases of the full list. (See, e.g., p. 10, lines 21-24; see also steps 308 and 310 in FIG. 3.)

The method further can include dynamically grouping the selected items in a list corresponding to the search topic, and labeling each group of the selected items with a corresponding search topic label. Each search topic label, more particularly, can be

generated from and comprise the one or more words identified as being common to each phrase corresponding to a selected item. (See, e.g., Specification, p. 9, lines 10-13.) Lastly, the method can also include audibly presenting each group label through the speech user interface, and responsive to a selection of one of the audibly presented group labels, presenting through the speech user interface items in a group corresponding to the selected group label.

The Claims Define Over The References

As already noted, independent Claims 1, 7, 11, and 17 were each rejected as being unpatentable over Chern in view of Tso and Hatakeyama. Chern is directed to a wireless, knowledge-based information-retrieval system and related methods. (See, e.g., paragraphs [0008]-[0023].) Tso is directed to a method for "dynamically" categorizing database search results using "grouping or clustering techniques." (Col. 2, line 53 – Col. 3, line 13.) Hatakeyama is directed to an "information search terminal apparatus and system" for searching "document data" and other information. (Col. 2, lines 33-43.)

Chern is cited as teaching the step of selecting items from a database based upon a topic-indicating phrase corresponding to a search topic. Chern's technique for selecting items from a database based on a topic-indicating phrase is described in a portion cited in the Office Action:

FIG. 7 is a process flow diagram illustrating a method for communication between a conversational agent 514 and a user. This communication method will typically be carried out by software residing in handset 100. In step 702, a user supplies a voice or text input request to handset 100 or, alternatively, to an appropriate device in communication with handset 100 (such as a website, for example). Agent 514 parses the user input (step 704)

by analyzing the input syntax (i.e. breaking a sentence into its components) and using a lexicon hierarchy (block 710) of potential word meanings. For example, if the user says "find me a %restaurant," the lexicon associated with the %restaurant might comprise Chinese, Japanese, and Mexican restaurants. The lexicon may be in hierarchical form, that is, the words most frequently used by the user would be at the top of potential meanings. (Paragraph [0064].) (Emphasis supplied.)

Thus, although Chern parses a user's input, Chern does not select items based upon that input in a manner comparable to Applicants' invention. In particular, Chern does not examine word phrases to identify common words among the different phrases. Instead, after parsing a user's input, Chern relies on "lexicon hierarchy" to determine potential word "meanings." This is entirely different from examining possible items for selection by examining word phrases corresponding to each possible item, as explicitly recited in amended Claims 1, 7, 11, and 17.

More fundamentally, however, in failing to examine word phrases and instead relying on a lexicon hierarchy, Chern can not select items by identifying one or more words common in different phrases and selecting those items corresponding to phrases having at least one common word. The distinction is clearly revealed when one considers that after parsing the user input and determining word meanings on the basis of a lexicon hierarchy, Chen has yet to identify those items to be included in a particular group according to the user input. Rather, Chern requires an additional step, one which requires additional user input:

In step 706, agent 514 attempts to associate stored answer templates (block 708) with the parsed user input in order to develop a set or list 712 of

possible answers. In the example above, the set of possible answers may comprise the following responses: (a) "What type of restaurant would you prefer"; (b) "Would you like me to find a Mexican restaurant (or Chinese, or Japanese)?" or (c) "Are you sure you are hungry?" (Paragraph [0065].)

It follows that Chern's technique of selecting items based upon a hierarchical lexicon and successive user inputs does not suggest the manner of item selection performed by Applicants' invention. Specifically, Chern fails to even suggest examining a full list of phrases contained in one or more databases in order to determine whether there is at least one common word between two or more of the word phrases so as to select those items corresponding to phrases having at least one common word. Accordingly, Chern does not select items for grouping by detecting at least one common word in each phrase corresponding to a selected item, as explicitly recited in amended Claims 1, 7, 11, and 17. Moreover, neither Tso nor Hatakeyama teach or suggest these features.

It further follows, therefore, that whereas Chern fails to determine common words among different phrases corresponding to different items in a database, Chern does not label groups of selected items based upon one or more identified common words, as also expressly recited in amended Claims 1, 7, 11, and 17. It is stated at page 4 of the Office Action, however, that Tso teaches the labeling of groups of selected items. Because, like Chern, Tso fails to group items by identifying one or more common words in different corresponding word phrases, Tso also fails to extract at least one common word in order to generate a label that comprises the common word or words, as also recited in amended Claims 1, 7, 11, and 17.

In the portion cited at pages 4-5 of the Office Action, Tso merely provides: "For presenting search results in a data file or on a printer, a category indicator may include a

text string identifying the corresponding category." (Col. 6, lines 54-56.) Tso's labels, however, are not generated from or comprise at least one common word. This is made explicit where Tso describes categorizing automobiles according to type (e.g., sports) or size (e.g., full-sized and compact). In each instance, none of the category labels include one or more common words. (See, Col. 6, line 57 – Col. 7, line 4; see also FIGS. 3A and 3B.)

Each of the references further fails to teach or suggest selecting items by detecting and ignoring a grammatical article when a grammatical article appears in one of the phrases of the full list. This clearly follows from the fact that, as already pointed out, none of the references even suggests selecting items by examining corresponding word phrases to determine which comprise at least one common word.

Pitt, which is cited in connection with dependent Claims 5 and 15, performs file sorting by comparing different filenames and grouping those that "share four or more characters" in common. Pitt, however, provides no mechanism whatsoever for identifying and ignoring grammatical articles, as recited in amended Claims 1, 7, 11, and 17. Pitt's three-stage process for sorting by file names operates according to the following steps:

"1a Any filenames which share a string of four or more characters are placed in a group. For example, SORTING.C, SORTING.EXE, NEWSORT.C AND NEWSORT.EXEC would be placed in one group since they all share the string 'SORT'.

1b Filenames grouped at stage (1a) are further sorted and any which share the same full filename (all eight characters prior to the extension) are placed into subgroups. For example, SORTING.C

and SORTING.EXE would be placed into one sub-group while NEWSORT.C AND NEWSORT.EXEC would be placed in another.

- 1c Within each sub-group, the filenames are further sorted into those which have purely alphabetical extensions and those with alphanumeric extensions. These are placed into separate sub-sub-groups within which they are placed in order, first by length (i.e., a .C extension would come before a .EXE extension) and then alphanumerically.

Stage 1 is repeated until no more groups of filenames can be found which share the same string of four or more characters.

- 2 If any filenames remain, they are sorted by extension. Filenames which share the same extension are placed into a group. They are then placed in order, first by length of filename and then alphanumerically.

Stage 2 is repeated until no more groups of filenames can be found which share the same extension.

- 3 Any filenames which are not grouped a (1) and (2) are sorted into two groups, one containing filenames with extensions and the other containing filenames without extensions. They are then placed in

order, first by length of filename and then alphanumerically." (P. 56, col. 2)

None of these steps -- identifying common character strings, sorting based upon file extensions, or ordering by length of filename -- have anything whatsoever to do with determining the occurrence of a grammatical article and then ignoring the identified grammatical article. Indeed, a simple example using the above-described three-stage algorithmic process reveals that, far from ignoring a grammatical article, Pitt's process in fact would use a grammatical article as the very basis for sorting: for the filenames THEENTRY.C and THEEXIT.EXE, the article 'THE' appearing before 'ENTRY' and 'EXIT' in the respective filenames results in the grouping of the two filenames based upon the common character string 'THEE.' The article is neither determined nor ignored, but actually dictates the result of Pitt's sorting based upon filenames and their extensions. Applicants respectfully submit that it is impossible to read Pitt as suggesting anything regarding either determining when a grammatical article appears or proceeding with a process by ignoring the grammatical article once it has been determined to appear in a character string.


Accordingly none of the references teaches or suggests every feature recited in Claims 1, 7, 11, and 17, as amended. Applicants respectfully submit, therefore, that Claims 1, 7, 11, and 17 each define over the prior art. Applicants further respectfully submit that whereas each of the remaining claims depends from one of the amended independent claims while reciting additional features, the dependent claims likewise define over the prior art.

CONCLUSION

The Applicants believe that this application is now in full condition for allowance. Allowance of the application, accordingly, is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Response, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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